

ISS Additive Manufacturing Facility for On-Demand Fabrication in Space, Phase II

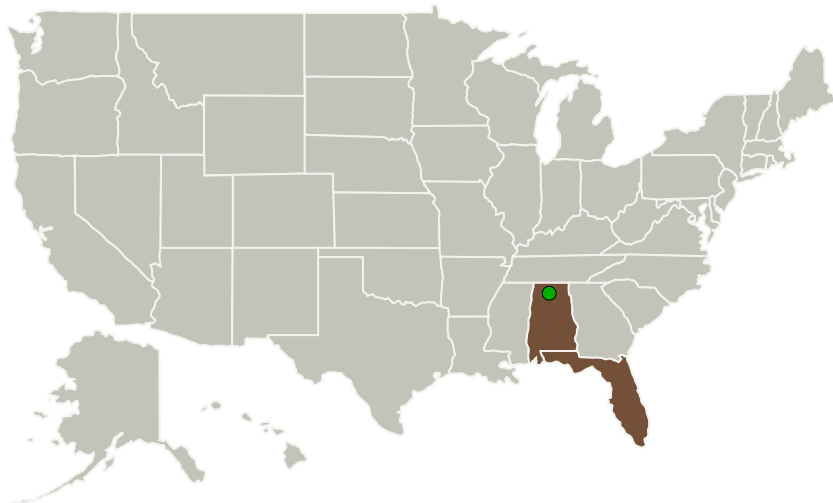
Completed Technology Project (2013 - 2016)



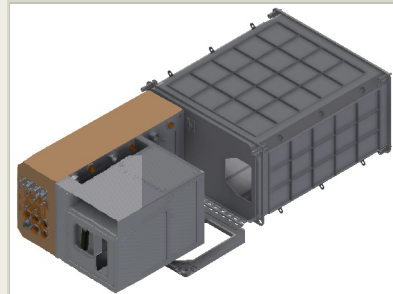
Project Introduction

Made in Space has completed a preliminary design review of the Additive Manufacturing Facility. During the first half of Phase 1, the design went through conceptual development, simulation testing, cost analysis, and comparison testing of which off-the-shelf parts can be used. The deliverables for Phase I include a written report detailing evidence of demonstrated technology (TRL 5) in the laboratory and will outline in detail the path taken toward hardware demonstration for Phase II (TRL 6). The preliminary design is ready to be manufactured as an engineering test unit in Phase II. A feasibility study was created to demonstrate what could be fabricated for the inside of the ISS (parts and spares) and for the outside (possible satellites). It is anticipated that many of the sample uses that the AMF will make possible on-orbit have not yet been envisioned.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Made in Space, Inc.	Lead Organization	Industry	JACKSONVILLE, Florida
● Marshall Space Flight Center(MSFC)	Supporting Organization	NASA Center	Huntsville, Alabama



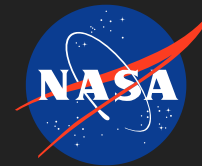
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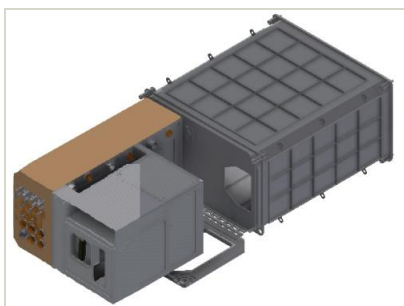


Primary U.S. Work Locations

Alabama

Florida

Images



Briefing Chart Image

ISS Additive Manufacturing Facility for On-Demand Fabrication in Space, Phase II
(<https://techport.nasa.gov/image/135155>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Made in Space, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

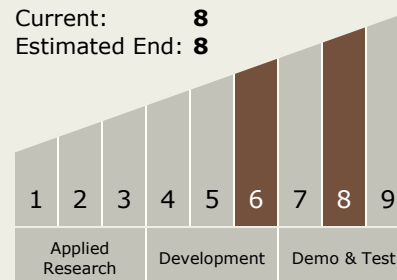
Carlos Torrez

Principal Investigator:

Michael Snyder

Technology Maturity (TRL)

Start: 6
Current: 8
Estimated End: 8



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Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.1 Remote Sensing Instruments/Sensors
 - └ TX08.1.1 Detectors and Focal Planes

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System